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Electricity on the Farm

A MONTHLY MAGAZINE FOR THE UP-TO-DATE RURAL FAMILY

10 CASH PRIZES will be awarded for the best titles for the above picture. *(See inside back cover for rules)*

OCTOBER
1936

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All you do is sit down and boss the job

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Goulds CID Water Supply Systems are available for deep or shallow wells in sizes to meet every requirement. Fine materials, honest workmanship and unequalled quality assure years of trouble-free service . . . yet prices are surprisingly low.

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6505

October, 1936

Electricity on the Farm

Vol. 9, No. 10

EDITORIAL

A haze on the far horizon,
The infinite, tender sky,
The ripe, rich tint of the cornfields,
And the wild geese sailing high—
And all over upland and lowland
The charm of the goldenrod,
Some of us call it Autumn
And others call it God.

—WILLIAM H. CARRUTH

AUTUMN

Autumn is a paradox: It is both joyful and melancholy. Nature adorns herself in her happiest colors, the skies are clear and bright, the Sun casts its warmth over the earth. The harvest is over, and a period of eased labors is at hand. Truly, Autumn is nature's great festival.

But after the festival comes rest and sleep, the long sleep of winter, with its frost and snow, and frigid winds; and solitude.

To those of ripe years, the season recalls the Autumn of life, with its shortening days and the inevitable end, and the separation from loved ones. The feeling of sadness is logical.

The buoyant heart of youth, on the other hand, looks eagerly forward to the bracing winter weather, to winter sports and to the holiday season which ends the old year. Also to the long winter evenings and the sociability within the family circle which they engender.

The scale balances in favor of the young. Their buoyancy, their happiness is contagious. Their increased companionship more than offsets the gloom of approaching winter.

Instead of being a melancholy season, Autumn should be looked forward to with keenest of pleasure. It is the season which draws the family together, which enables the members thereof to join in recreation. The harvest days are over and there is then time to devote to the finer things of life.

And in the enjoyment of well earned leisure, electricity is becoming a greater factor each year. When properly used it not only eases the grind of daily chores, but it brings to the farm family all the comforts and conveniences of the city.

FRED SHEPPERD.

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Lighten WINTER CHORES with Red Jacket

. Pays for itself
THE FIRST SEASON

Now is the time to get a Red Jacket Water System, and eliminate the drudgery of carrying water when it is cold and icy. They are easily and quickly installed so that you will always have a dependable supply of water in your house and barns.

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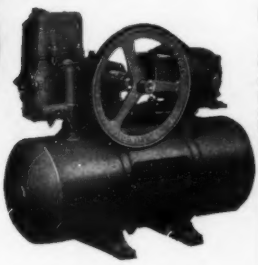
LOWEST OPERATING COST

Because of Red Jacket's Low Original and Operating Cost, these Water Systems will pay for themselves the first season. Prepare now against a possible Winter Drought.



Shallow and Deep Well Water Systems from 230 gals. per hour to 10,000 gals. per hour—completely automatic, quiet, compact, fully guaranteed.

Attention
DAIRY FARMERS

Milk prices will be high this Winter. Assure your cows abundant water night and day with a Red Jacket Water System and your milk volume and profits will soar. Write today for information on Red Jacket's dependable Water Systems.

SEND COUPON TODAY

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EXCITING MEALS

that cook themselves while you're away

CHICKEN DINNER
Stewed Chicken and Dumplings
Sweet Pickle Relish
Buttered Peas
Orange Jelly Roll
Coffee

HOTPOINT DINNER
Vegetable Soup
Baked Ham with Sweet Potatoes
Green Beans *Corn Bread*
Cherry Pie
Coffee

COUNTRY SUPPER
Oven Fried Chicken
Riced Potatoes
Mint Butter Carrots
Blueberry Betty
Coffee

DOWN EAST LUNCH
Baked Beans Au Gratin
Brown Bread
Cabbage Relish
Baked Spiced Apples
Coffee

● Now you can do away with the chore of cooking—and never give up a meal. Science gives you a new miracle of electricity—"Absent Cookery."

The timer-clock on the Hotpoint Range does the trick. It's a regular "Chef's Brain" that turns the current on and off and keeps food warm. All you have to do is get the meal ready—put it in the oven—and set the time you want cooking to start and stop. Then you can leave the house and forget about it. When you return everything is ready to serve.

Automatic cookery is only one of the marvelous features of the beautiful, new Hotpoint Electric Ranges. Ask your electric company to demonstrate the Hotpoint Range to you today. Edison General Electric Appliance Co., Inc., 5610 W. Taylor St., Chicago.

5 REASONS WHY Miracle Cookery is possible with the Hotpoint Electric Range:
Clean . . . Cool . . . Fast . . . Better Results . . . Economical

ELECTRIC **Hotpoint** RANGES
AND WATER HEATERS

COOKED AUTOMATICALLY

● *The menus listed above are a few of hundreds that make appetizing automatically cooked meals.*

CALROD—Hotpoint's electric unit which revolutionized cooking methods, brings Hi-speed, cleanliness, and economy to the electric range.

THE CAMBRIDGE—A new Hotpoint Electric Range. All porcelain enamel with chromium trim. Table-top model. Full size oven. Spacious storage drawer. Calrod units and Thrift Cooker.

THE VOGUE — (left) Hotpoint's new, modern style square-type water heater, gives hot water every hour of the day or night without one minute's attention from you.

LIGHTING the BUILDINGS of the FARMSTEAD

By T. E. HIENTON

A DESIRE for better lighting facilities in the farm house, and other farm buildings, has and still continues to be one of the most important motives which actuate farmers to secure electric service. Installation of electric lighting in the farm house and other buildings of the farmstead is of such great importance that it should be carefully studied and then definitely planned.

The sole source of illumination on many farms prior to securing electricity has been kerosene lamps and lanterns. Too often, any planning of the lighting system with electricity is based on this source which preceded it, a total of three or four lamps and one or two lanterns. Figures reported in Bulletin 225 of the Agricultural Experiment Station of the University of Nebraska list the number of lamps owned per household as 3.8. Obviously this number of electric lamps would be entirely inadequate for the average farm house.

In the above study of the lighting of Nebraska rural homes by kerosene and gasoline lamps, other problems, besides the number of lamps, were revealed which warrant consideration in planning an electric lighting system for the farm house. These problems include adequacy of illumination, since the intensity found was far below the standards set by illuminating engineers. A great deal of glare existed in the houses, light distribution was very poor and there were harsh, objectionable shadows present.

Miss Greta Gray, author of the bulletin, suggests four methods of improving the illumination in the houses studied which might well be considered in planning or improving the electric lighting of the farm house. These four methods include: first, the use of more of the higher candle-power lamps; second, the use of two or more lamps per room (approximately 82 per cent of the kitchens and sitting rooms were lighted by one lamp each and only 0.7 per cent by three lamps each); third, by putting the lamps in the kitchen above eye level; and fourth, by shading all lamps. The first two methods were suggested to increase the intensity of illumination. The second, third and fourth methods were recom-

Front entrance to farm house showing an enclosing globe unit over front entrance illuminating this entrance as well as the entire porch. Switch control inside of front door.

mended to improve the distribution of light and eliminate some objectionable shadows, while the third and fourth were suggested to prevent glare.

Intensity of illumination is measured by a unit known as the foot-candle, and is the amount of light furnished by a candle at a distance of one foot. Daytime lighting intensity is often as high as 10,000 foot-candles in the direct sunshine and about 1,000 foot-candles in shade or shadow. Reading and fine work, such as sewing, are easily possible even in the shade, but it is not economically feasible to attempt to provide similar illumination during the hours of darkness.

Recommendations By Illumination Engineers

Illumination engineers, who have studied light intensities to determine those required for various conditions, recommend a minimum of 20 foot-candles for reading, sewing, etc. On work tables and at sinks and stoves an intensity of at least five foot-candles should be provided. Many farm women who live in electrified homes will immediately ask how they are to know what the lighting intensities may be at these various places in their residences. Lighting intensity is measured by an instrument known as a foot-candle meter. Home demonstration agents, home service workers and lighting engineers usually have available or can get one of the small "sightmeters" for measuring such intensities.

For those who may not be able to secure such an instrument, it is suggested that the lighting intensity provided by the I. E. S. study lamp with a 100-watt lamp is about 20 foot-candles at a distance of 24 inches from the lamp. This type of lamp belongs on every table or desk whether writing, studying or reading is done. It is manufactured by more than twenty companies according to specifications of the Illumination Engineering Society, and each unit carries a tag which identifies it as manufactured according to those "IES" standards.

Plans for the lighting as well as wiring of an entire set of farm buildings or for completion of those of a farmstead in which one or more is wired, should be completed before the wiring contract is made. Proper adequacy in wiring is an absolute necessity for a good lighting installation. Especially is it true of the wiring from the meter to the various buildings in the farmstead. Yard lights are often to be controlled from three or more sources which require the installation of four-way and three-way switches. Assistance in making such plans is usually available from some power companies through direct advice or in the form of bulletins. Many state agricultural colleges furnish helpful bulletins on the subject through

Corner of the grain and feed room connected with the hen house and lighted by 2-40 watt lamps and shallow dome reflectors. Controlled by two 3-way switches located at the two doorways of this room.

This is one end of the hay loft in the barn lighted with two 100 watt lamps in shallow dome reflectors, mounted high to give a wide distribution. These units provided with a disconnecting hanger to permit them to be lowered for lamp replacement without the need of a ladder. The units are controlled by two 3-way switches, one at the door to the hay barn and the other at the bottom of the stairs in the stable beneath.

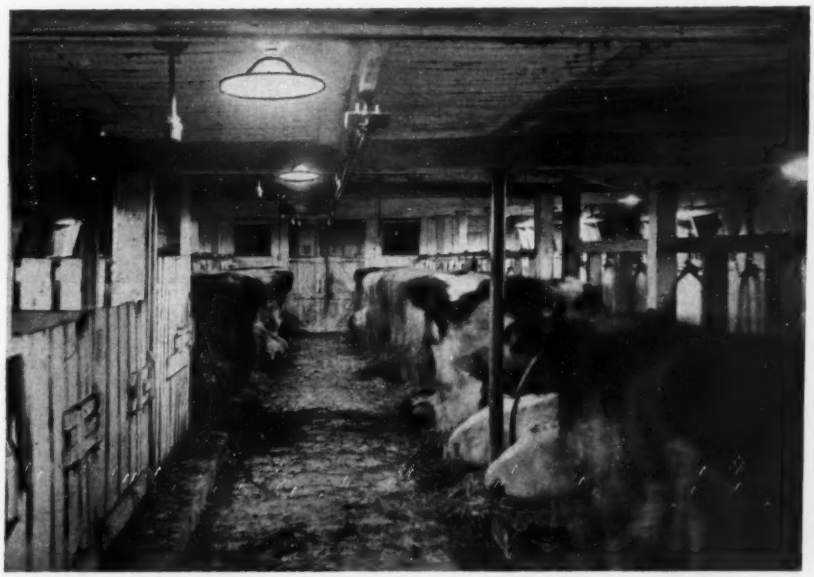
the county agricultural and home demonstration agents.

Some readers may not be able to obtain any of the assistance suggested so that the writer will present a very brief outline of the lighting outlets that should be installed. In any single installation the four points emphasized previously in the Nebraska publication should be considered, namely, adequacy of light intensity, which includes right sizes and number of lamps, avoidance of glare and shadows through proper location of lamps and their shading.

The kitchen is the center of activity in the farm house and it should have a center ceiling outlet with such wall lighting outlets at sink and range as are necessary to eliminate shadows while the housewife is working there. One ceiling outlet in the center of the dining room with a five-socket fixture will provide adequate light on the dining room table for ordinary purposes. For sewing, writing, etc., additional light should be provided. A center ceiling outlet with two base or wall outlets for floor or table lamps are necesary in the living room. One ceiling outlet and at least one wall outlet for a bed lamp or dressing table lamp will suffice for each bedroom. In the bathroom a wall outlet at each side of the mirror or storage cabinet will provide adequate light for the room and shaving. The number of light outlets in the basement will be determined by the work to be done there. One should be located near the stairway, another near the heating plant and a third over the laundry equipment. A fourth is advisable if there is a separate fruit room. Porches require at least one ceiling or wall outlet. Closets, particularly if they are large, should have one outlet.

Lighting outlets for the farm buildings will be determined by their size and construction. In dairy barns an outlet should be provided at intervals of 14 to 18 feet, four feet back of the stanchions. In horse or mule stables there should be an outlet behind every other stall. Feed rooms and harness rooms require one outlet for every 400 square feet of floor space. In granaries and cribs, at least one outlet should be installed over the driveway near the elevator dump. Garages, implement sheds and brooder houses should have a minimum of one outlet each. Poultry houses should be wired with an outlet for every ten feet of length. The farm shop requires a ceiling outlet and wall outlet not more than five feet above the work bench.

At least one yard light should be placed on the side or corner of the farm or on a pole in the yard. All lamps outside of the house should be equipped with reflectors to obtain most satisfactory illumination.



A well arranged lighting system in the dairy barn not only speeds up the work, but promotes greater cleanliness of product and structure.

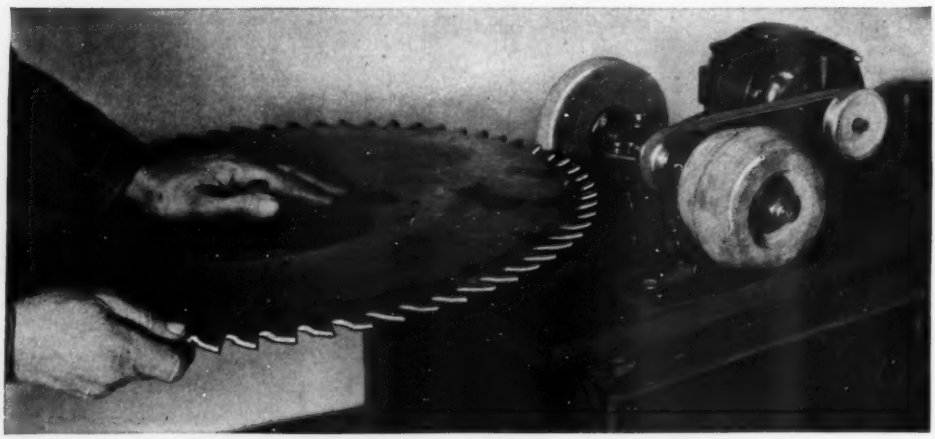
EQUIPMENT
for the
FARM WORKSHOP

By L. M. ROEHL

THE farm workshop is a money saver. By its use the work of keeping the tools and machines in good working condition may be done at times when other farm work is not particularly pressing. The money saved by doing the work at home makes a considerable difference on the credit side of the farm ledger.

If a separate structure is built the size is determined by the amount of storage space required for truck, car, tractor and repair tools. If a garage is to be built for the family car, it is, in many instances, desirable to build it to serve the dual purpose of garage and farm workshop. A building 12x20 ft. has been found suitable. Such a structure would have a nine-foot door with windows in the upper part and two windows at each side.

Fig. 1. The electric power grinder used to true up a buzz saw.



The following list includes all the tools and machines commonly required to meet the repair and construction problems that arise in farm practice. Success in their use depends on the mechanical ability of the farmer, the tool and machine equipment, and a place to use them to good advantage.

Farm Carpentry Tools

1—claw hammer.
1—24-inch, 8-point crosscut handsaw.
1—24-inch steel square.
1—26-inch hand ripsaw.
1—14-inch iron jackplane.
1—ratchet brace, 10-inch sweep.
1—set of auger bits; ¼-inch, 5/16-inch, ⅜-inch, 7/16-inch, ½-inch, ¾-inch, 1-inch.
1—expansive bit, ⅞-inch to 3-inch.
1—combination mitre and try-square, 12-inch.
1—rose countersink.
1—nail set.
2—screwdriver bits, 5/16" and ⅜".
1—4-inch screwdriver.
1—10-inch screwdriver.
1—¼-inch chisel.
1—½-inch chisel.
1—1-inch chisel.
1—6-inch slim-taper triangular file.
1—8-inch regular-taper triangular file.
1—10-inch rat-tail file.
1—10-inch flat mill file.
1—10-inch flat bastard file.
1—10-inch half-round bastard file.
1—12-inch half-round wood rasp.
1—woodworkers' vise.
1—auger-bit file.
1—marking gauge.
1—26-inch spirit level.
1—4½-inch broad hatchet.
1—8-inch steel wing dividers.
1—10-inch T bevel.
1—24-inch wrecking bar.
1—2¾-pound wooden mallet.

2—interchangeable file handles.
1—2-inch x 8-inch combination carborundum oilstone.
1—12-inch compass saw.
1—10-inch drawshave.
1—handsaw set.
1—timber-saw set.
1—crosscut-saw tool.
1—scratch awl.
1—saw vise.
1—plumb bob.
1—chalk line.
1—6-ft. folding rule.

Farm Metal-Working Tools

1—blacksmiths' drop forged leg vise.
1—hack-saw frame with 12 flexible blades.
1—2-pound machinists' hammer.
1—3½-pound blacksmiths' hand hammer.
1—8-inch monkey wrench.
1—18-inch monkey wrench.
1—set end wrenches.
2—14-inch pipe wrenches.
1—chain drill.
1—¼-inch bit-stock drill.
1—5/16-inch bit-stock drill.
1—11/32-inch bit-stock drill.
1—⅜-inch bit-stock drill.
1—13/32-inch bit-stock drill.
1—7/16-inch bit-stock drill.
1—½-inch bit-stock drill.
1—⅝-inch bit-stock drill.
1—hand drill.
1—set of 9 twist drills: 1/16", 5/64", 3/32", 7/64", ⅛", 9/64", 5/32", 11/64", 3/16".
1—each blacksmith drills: ¼", 9/32", 5/16", ⅜", 7/16", ½", 9/16", ⅝", ¾".
1—6-inch carpenters' pinchers.
1—6-inch slip-joint pliers.
1—fencing pliers.
1—cold chisel, ½-inch.
1—cold chisel, ⅝-inch.
1—cold chisel, ¾-inch.
1—hand punch, ¼-inch.
1—hand punch, ⅜-inch.
1—hand punch, ½-inch.
1—line-up punch.
1—center punch.
1—30-inch wrecking bar.
1—piece of railroad rail 30" long with stand for farm anvil.
1—¾" star drill.
1—rivet set.
1—whetstone.
1—quart blow torch.
1—1-pound acid-core wire solder.
1—tinners' snips.
1—12-ounce riveting hammer.
1—center punch.
1—screw plate (stocks and dies): ¼-20, 5/16-18, ⅜-16, 7/16-14, ½-13.

Harness Repairing

1—harness stitching clamp.
1—4-tube spring punch.
1—trimming knife.

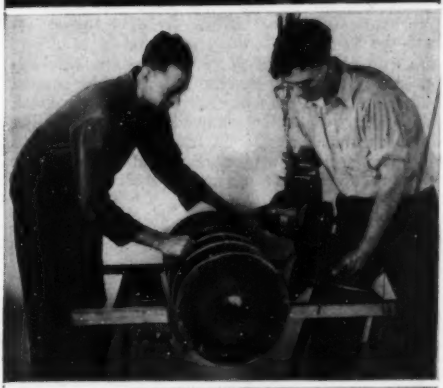


Fig. 2. **(Top)** Gumming a crosscut saw. Fig. 3. **(Upper center)** The ensilage blade is held parallel to the side of the stone. Fig. 4. **(Lower center)** Grinding a disk harrow. Fig. 5. **(Bottom)** The portable drill is handy for work on machinery.

1—awl haft, and 4 assorted blades.
1—finishing wheel.
1—Rex riveting machine.
2—punches, 3/32-inch, 4/32-inch.
1—ball No. 10 white linen thread.
1—box assorted tubular rivets.
1—box assorted copper rivets.
1—paper of sewing needles, assorted.
4—balls harness-makers' wax.
1—piece beeswax.

Farm Workshop Electric Power Machinery

1—motor-driven grinder.
1—motor-driven drill press.
1—8-inch circular saw.

The great time and money saver in the farm workshop is electricity. It can be put to good use in tool fitting and the overhauling of farm machinery.

All farm tools may be ground with an electric grinder if the machine is designed as the one illustrated with the motor back out of the way to allow the work to be brought up to the grinding wheels.

The grinder in Fig. 1 shows its application in truing up a circular saw. When all teeth have been touched the grinding wheel is replaced with a saw gummer and the saw gummed preparatory to filing. A jig needs to be used to hold the saw at a fixed distance from the grinding wheel while it is rotated.

Fig. 2 shows the application of the gummer wheel for gumming a crosscut saw. The buzz saw is gummed in similar manner. This work cannot be done without the use of a high-speed grinder. A slow-speed machine heats the saw blade and wears the stone rapidly.

On the other end of the grinder shaft is a beveled sickle grinder. By its use a sickle can be ground in less than twenty minutes. For this work the grinding wheel is removed to allow holding the sickle horizontally on the stone, and thus grind two sections at the same time. The sickle cone is removed excepting when required for sickle work during the haying season. It is used for no other work.

Fig. 3 shows the appliaction of electricity for a farm grinding job that is exceptionally tiresome by hand. The ensilage cutter blade is held lengthwise with the wheel instead of across it. This grinds a straight bevel that will stand up in the work instead of a hollow-ground surface which cross grinding produces. By holding the cutter blade as illustrated and moving it up and down on the face of the grinder the heat due to grinding is distributed along the blade and thus does not draw the temper.

Another application of the farm grinder is grinding a disk harrow as shown in Fig. 4. The gangs of disks are removed from the frame or merely raised free of the floor if work on the boxes is not necessary. Blocks are nailed onto the pieces of wood that support the gang to prevent it from rolling off as it is turned. The grinder is removed from the bench and suspended by a piece of rope and an old inner tube as shown. The weight is thus carried and the tube, being flexible, permits holding the machine just where needed. One man rotates the disks while the other holds the grinder as illustrated.

The portable drill is a good investment where much machinery repair work is to be done. By its use holes may be drilled as needed for repairing with metal straps, bolts and rivets as shown in Fig. 5. This is a great convenience as there are many instances where the work cannot well be removed from the machine and placed under a drill press. The illustration shows a spring tooth harrow that had been bent out of shape and needed heavy metal straps to be attached with bolts as indicated.

Much of the drilling work can better be done with a drill press and it is desirable to procure a stand to hold the portable drill. For work in the overhauling of farm machinery it is desirable to get the larger size of drill, one with a ½" chuck is required.

Another application of the portable drill is cleaning the moldboard of a plow. The shaft of a wire brush fits the chuck of the drill and it may be held as required. The wire brush is also useful in preparing metal surfaces for painting.

An ordinary power drill press is shown in Fig. 6. This outfit is built with a cone pulley to permit a variety of speeds and will drill all sizes of holes required in farm machinery repair work.

There is sufficient need for a power saw to warrant the investment on many farms. A half-horse or larger motor should be used so as to force the saw through two-inch material. Two 8-inch blades are needed—a rip saw or ripping out material, for evenness, wagon reaches and similar work and a crosscut blade for making crates and crosscut work generally.

A farm workshop equipped with the tools needed to do construction and repair work and the power tools as illustrated not only more than pay for themselves in the farming occupation, but add materially to the pleasure of farming as a mode of life.

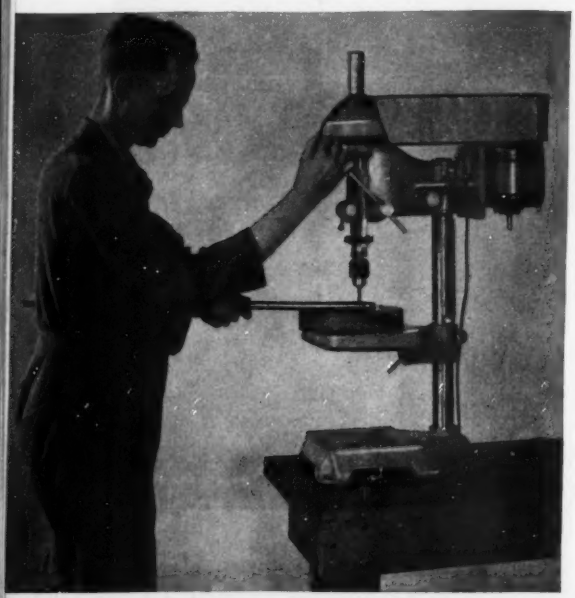


Fig. 6. Motor driven drill press.

THERE ARE PROFITS IN WATER

By J. C. SCOTT

AN automatic electric water system will save the farmer and his wife more time and labor, and afford more comfort and convenience, than any other electric device. In fact, farmers who have had an electric water system installed for some time become so dependent upon it that they figure it would be impossible to carry on their farming operations without such pumping equipment.

Only a few days ago I talked with Mr. W. C. Stuart, a Western Washington poultryman, who, when I called on him, had about 4,000 laying hens in the poultry house and 1,500 pullets on the range. I remarked that it would be quite a job to carry water by hand for so many birds. His reply was: "Quite a job? Do you know that on one occasion a few years ago the power went off for just four hours—and do you realize that two of us started pumping water and carrying by hand to fill the water troughs—and just as soon as we had the last ones filled up, the first we had filled were empty again.

"Now, if you want to get a conception of what it means to us in our chicken business alone, figure two men carrying water all day long, every day in the year, including Sundays, holidays, and every day. Even then we would not be able to supply the chickens with the same amount of fresh water they get from the automatic pressure system. Of course it would be an impossibility to be in the poultry business to the extent we are, without this automatic water pressure system.

"And do you realize too, that for two men to carry water all day long, in comparison to the expense of owning and operating an electric domestic water system, each of them would be working for not to exceed 5c a day. In fact, I think it would figure out about 2½c or 3c.

"Next to the convenience of having water in the poultry house on this farm comes the convenience of plenty of water on tap in our home. Since putting in the water pressure system we have also installed an electric hot water tank for the house. We are never without hot or cold water at the faucet in the house, day or night.

"Mother has all the hot water she needs without carrying it, for scrubbing and washing, and that makes a lot of difference in her work. My brother and I take a bath every day of the year, which of course was not at all the case when it was necessary to carry water, and heat water on a stove as in the old days."

In going over Mr. Stuart's farm operations and

Above: The summer pullet range on the Stuart Poultry Farm, Maple Valley near Renton, Wash., could not be used if it were not for the electric pumping system which delivers drinking water to the pullets.

Left: Furnishing 4,000 hens with fresh, clean, running water from the tap, warmed to the right temperature in cold weather, is the job that electricity does at the Stuart Poultry Farm. "The drinking water for the hens," says Mr. Stuart, "is kept at 55° during the entire winter by using a thermostatically controlled water warmer in each trough."

DAIRYING with the Aid

Upper left: An electric milk cooler chills the milk on the farm of Wm. Peterson, North Brook, Pa.

Left center: (above) The dairy herd of a Western Washington dairyman where many chores are done electrically.

Center right: (above) Separating milk with the aid of an electric motor on the farm of R. C. P. Thomas, Bowling Green, Ky.

Upper right: The milking parlor on Forge Hill Farm, New Windsor, N. Y.

Left: Soft mellow music, said to have a soothing effect on cows, is brought via radio to Marymoor Dairy milking barn, Kirkland, Washi

Right: of the New stituti

Lowe system milk c

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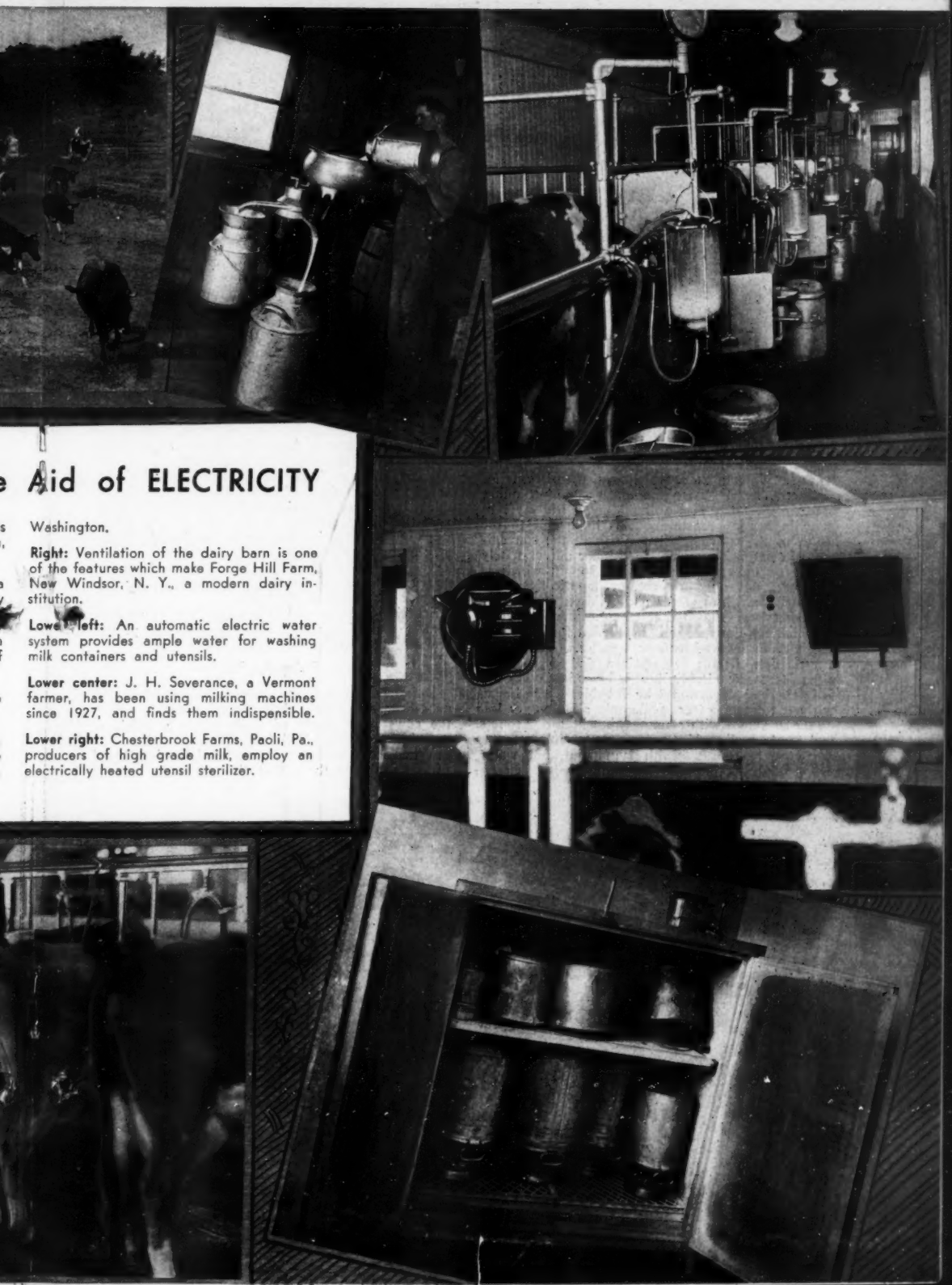


e Aid of ELECTRICITY

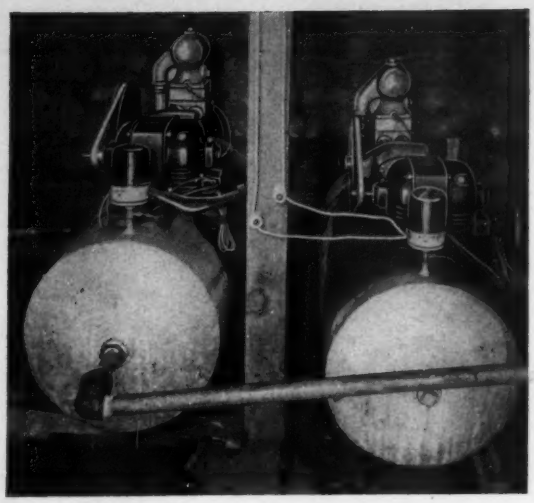
Washington.

Right: Ventilation of the dairy barn is one of the features which make Forge Hill Farm, New Windsor, N. Y., a modern dairy institution.

Lower left: An automatic electric water system provides ample water for washing milk containers and utensils.

Lower center: J. H. Severance, a Vermont farmer, has been using milking machines since 1927, and finds them indispensible.

Lower right: Chesterbrook Farms, Paoli, Pa., producers of high grade milk, employ an electrically heated utensil sterilizer.



Two 6-gallon an hour automatic electric pumps provide water for 2,000 laying hens and 1,500 pullets, as well as plenty of water for household purposes on the Stuart farm.

visiting his home, one realizes that the thing which will place the farm home on a par with the city home in health, beauty, comfort, and make it just the finest place in the world in which to live, is an automatic electric water pumping system. Running water in the home is, we might say, a life saver in many instances. Certainly it is important to the health of the entire family. Without the convenience of running water, time and labor unfortunately are saved by cutting the water supply which is necessary, not only for comfort and convenience but to the health of adults and children

Studies have shown that where water is carried by hand, the daily 25 gallons needed for each person is often reduced to 6 or 8 gallons. With such a reduction, health is impaired and doctor bills often increased. Public health investigations carefully checked show that 4 in 20 babies die in homes without running water, while only a little over 1 in 20 die in homes with running water, interior toilets, and septic tanks. Not only is water important to the farmer from a health standpoint, but water, next to air, is the cheapest thing the farmer has which can be turned into money.

Eggs are 65% water. The water in eggs sells for about $1.56 a gallon when eggs are selling for 30c a dozen, as there is a pint of water in each dozen of eggs. In other words, the water in a dozen eggs at 30c a dozen sells for 19½c. It is only good business to figure this out in exactly this way, because if we cut down on the water supply for the hens, those hens in turn will cut down on the number of eggs laid, regardless of the amount of feed they receive.

A reduction of water supply also has a definite tendency to cause hens to lay smaller eggs. And besides the water which goes into the production of a maximum number of large eggs, the hen in heavy production needs more water for other purposes. One hundred hens, laying heavily, expel some 3 to 4 gallons of water a day. Non-layers expel only about half that amount.

Water plays an important part in digestion. It serves to soften the feed and make it more digestible. It acts as a carrier in transporting the feed from the digestive tract to all parts of the body. More important is its function of keeping the birds healthy by carrying off waste products. Water serves to equalize the temperature of the body by evaporation. It even serves as a lubricant for the muscles and joints of the body.

Scarcity of water will often cause hens to go into a molt, and of course during the moulting period they produce hardly any eggs at all.

Dairy Profits

Dairy profits are often materially increased for no other reason than that the dairyman sees that the cows have plenty of fresh water to drink at any time they want it, day or night.

When we have to pump water by hand for a herd of cows, the truth is that the cattle do not get

The Stuart kitchen where electricity furnishes plenty of hot or cold water on tap at any time of the day or night that it is needed; preserves foods by refrigeration; and cooks the food (but not the cook) during the summer time.

enough to drink. For a milk cow in heavy production, to simply fill up on water once or twice a day is not enough.

Milk is about 87% water. A cow's body is 70% water. A heavy producing cow should drink about 12 gallons of water a day. A decrease in water consumption is reflected at once in a decrease in milk production.

Recently I talked with a dairyman who had had the experience of increasing milk production during the fall and winter months by installing drinking cups in the barn. This dairyman said to me:

"Most dairymen could make a substantial profit on water. No," he said, "I do not mean by watering the milk, but by watering the cows more than is customary with many of our dairymen. I was milking fourteen head of good cows when I installed water cups in the barn, giving the cows an opportunity to drink as much and as often as they wanted. This actually increased the amount of milk I was getting and the cows held this increase during the entire winter. It took only a reasonably short time for the increased milk to pay for the electric running water system on my farm."

Influence on Health of Cows

Other dairymen who have had similar experiences tell me that they have noticed that plenty of water, day or night, has a definite influence on the health of the cows. One dairyman said: "I have never had any trouble in my dairy herd with compaction of the bowels since providing the cows with plenty of water, not just once or twice daily but at any time of the day they want it."

From a financial standpoint, it pays the dairyman or poultryman to install an electric water system. Let us consider the farm family of five, with livestock to the extent of 30 head of dairy cows. Their water requirements will be a little less than 15,000 gallons a month. With a well of average depth, it will require 1 KWH to pump 1,000 gallons, or 15 KWH per month. At an average rate of say 3c a KWH for electricity, the current cost for pumping water on this farm would be 45c a month. Let us figure at $6 a year.

Suppose one had to pay $200 for an electric pumping outfit, with pipes and other accessories. The depreciation, figured over a period of ten years, would be about $20 a year. The maintenance of the outfit should not exceed $1 a year. Then the total cost for electric service, depreciation and maintenance of the pumping outfit would total roughly $27 a year, or just a little more than $2 a month.

Now, to pump by hand the 15,000 gallons, which is the water requirement for such a farm for one year, would require at least 2 hours a day, or 730 hours a year, and considerably more if much of the water had to be carried. Figured at only 25c a hour the labor to pump that amount of water would be $182.50.

If some one offered to give us 3c for pumping enough water to fill twenty 50-gallon barrels and to carry this water for a distance of 100 feet, we would think it a mighty unfair proposition—out of all reason. Yet that is exactly what many people on farms are doing when they compete with an electric motor in pumping and carrying water.

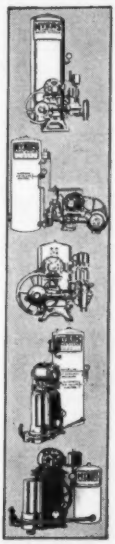
Suppose someone else came along and asked us to work for 1c an hour. Here again it would seem like a proposition so unfair as to be ridiculous.

(*Continued on page 24*)

RUNNING WATER

YOUR FAMILY DESERVES IT

FARM machinery can be repaired and made ready for service "between seasons." But a water system must be ready every hour, day and night, the year around. Interruptions of service for repairs are always inconvenient. That is why the famous dependability of MYERS Water Systems is doubly valuable. Thousands of satisfied farm and suburban users can tell you how wonderfully durable and free from repairs MYERS Water Systems truly are. You are assured of lasting satisfaction when you install a MYERS. Built in styles and capacities to suit all needs—for deep or shallow wells. Take advantage of present low prices and write today for free booklet of information. Our local dealer will be glad to assist you in selecting the equipment that best meets your requirements.



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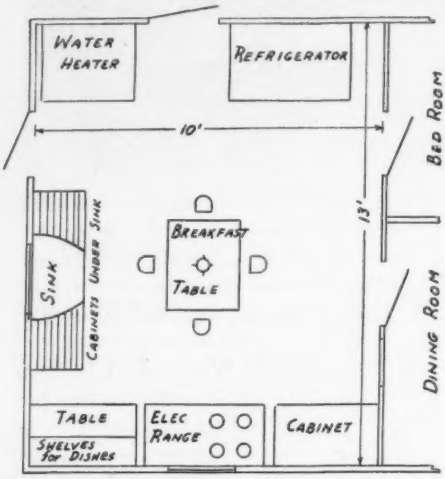
A GEORGIA KITCHEN

By FERN SNYDER

MRS. WINTERS, wife of the post master at Bradley, Georgia, had used a Delco plant for some time, but had found the cost of operation high. So when a new electric line was built, Mrs. Winters set about the task of modernizing her kitchen to use the current it would supply.



Above: Plan showing arrangement of equipment in Mrs. Winters newly acquired kitchen.

Below: Electric range and a number of appliances in the kitchen of Mrs. Balkcom, James, Ga.

She had a back porch 10' x 13' which she decided to make into a kitchen. With lumber left over from some work done on her house, she added two additional walls, doing most of the work herself. She secured the window and door facings from an old school building which was not being used any longer. She built a roomy cabinet under the sink, for storing cooking utensils. An old library table was pressed into service after the paint had been removed and a coat of white enamel put on. This made Mrs. Winters a good working surface, and on the back of the table against the wall was placed a group of shelves for holding dishes.

Mrs. Winters, it seems, is a born trader. She sold her ice box, and traded in her Delco motor as part payment on her new six cubic foot refrigerator. She traded her oil stove and a bed for enough linoleum to cover her kitchen floor. She bought an unpainted breakfast room suite and finished it attractively in black and white. She made her curtains from marquisette, trimming them daintily with rick rack braid.

Her new electrical equipment is the joy of her life. She has a new pump, a new electric range, with thrift cooker, and a new square 40 gallon water heater. She has the small appliances as well—an electric mixer, iron, percolator, radio and fan. The kitchen is well lighted with a modern kitchen light, using a 100 watt bulb. Since Mrs. Winters stays in the post office during the day, she leaves everything in charge of Queenie, her negro cook. And how Queenie loves that electric range! Although she cannot read, she operates the range perfectly.

Soon after the range was installed, a "kitchen party" was held by the Home Economist from the Power Company and Queenie assisted with the preparations. Fifteen neighbors were present, and after the food had started cooking, all went into the living room where a discussion of the proper lighting of the home was given. Queenie was a little dubious about leaving the food without any attention for over an hour, but when she saw the fine results, she was completely won over! As a result, when we visited her several weeks later, we found her working in front of the house, while back in the kitchen her oven was cooking her dinner for her. Her oven meal consisted of baked ham, snap beans, potatoes, egg bread and peach cobbler. She uses the electric mixer very often, and makes delicious ice cream for the family in the new electric refrigerator.

More than anything else, Mrs. Winters is pleased with her bill, which usually runs around $8 per month, including the water heater. Before electricity was available, the ice bill alone was from $4 to $5 per month. The electric range is their only method of cooking, and they are able now to make one trip per week to town to buy supplies, thanks to the refrigerator.

Mrs. Winters says, "I am more proud of my kitchen than any other room in my house. I show it to everyone who comes here."

There are many other farm families in this section who are equally thrilled by the convenience

(*Continued on page 24*)

ELECTRICAL HOUSEKEEPING

Conducted by
GAIL MEREDITH

MEASURED LIGHT

IT gets dark early now October's here. For many months to come much of the children's studying, much of our work and much of our play will have to be done by lamp light.

Out in our sunny gardens where most of us have spent a good deal of the summer, we were working in light that measures,—so engineers tell us, about 10,000 footcandles.

If footcandle is a new word to you, don't worry. It was to most of us just a short time ago, for this whole study of measured light is very new. A footcandle is the unit for the measure of light. We might as well adopt the word and learn to use it like watts and degrees and inches, all units of measure for one thing or another.

If you are curious about it, you may like to know that a footcandle is the intensity of the light a candle of certain definite size will cast on a surface a foot away.

Even if we sat down in the shade of a tree to rest

To measure the light on your work.

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TIME AND WORK GET MORE DONE

When you put a Century Motor on the job you get more work done, at less cost, in less time—Pumping Water, Grinding, Shredding, Baling, Feed Mixing, Sawing Wood and other back-breaking jobs that take the profit out of farming when you do them by hand.

And—remember this: When you buy a Century you get a motor with an outstanding performance record as a pioneer in the field of rural electrification.

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a minute and glance through the issue of ELECTRICITY ON THE FARM the mailman just left, we might still have from 500 to 1000 footcandles of light on the page.

But when we go inside, we find, even in the day time, that we have built light out along with cold and rain and snow. And as for the lights we have at night, of course they do not try to compete with the sun.

How much light do you suppose there is on the children's books when they study at the dining room table night after night? You want them to have plenty, of course.

What is plenty, you say?

Now you have led me right into the thing I wanted to tell you about: measuring light. For since lighting has become a science, light is measured. It is no longer just a matter of screwing in a bulb and plugging in an attractive floor lamp. The engineers who have been studying it for years have worked out, not only the way to measure light, but the way to get just the right amount of light to make it easy to see in our houses after dark.

One of the tools they work with, a tool that can be brought right out into your own house by the lighting specialist from your power company, is a little box-like meter you can hold in the palm of your hand.

Another meter that reads, not in foot candles, but "large print," and "Sewing on dark goods" and indicates the amount you need for fine work over long periods of time.

On the face of this meter is a disk that is sensitive to light. The intricate inner workings of this box connect the disk with the needle of the meter. The amount of light is converted into electric energy and sends a tiny slender black needle along a scale which is marked off in footcandles.

If you will sit down in your favorite chair and put this meter on you paper or on your darning, you can measure exactly the amount of light that falls on your work.

By measuring the light that thousands of people with normal eyes wanted for easy seeing, the lighting engineers have been able to work out a table of the required light for work of different kinds.

Because eyes differ, and light requirements do vary there is considerable range in their recommendations. But not satisfied with that, these engineers have gone a step farther and put in the hands of people who—shall we say prescribe light, for our homes, a way to tailor the light to fit exactly. This is by means of a lamp which lets you select for your ownself exactly the amount of light you need for comfortable, easy seeing.

You may find one of these lamps, if you are really interested in lighting, in the office of the power company and perhaps in your local oculist's office, too.

You sit down under the lamp and the lighting specialist turns a knob or moves a lever, to shift series of shutters and adjust the light, increasing it or decreasing it, until you get the light you want.

Then she puts in your hand the little sight light

RUNNING WATER

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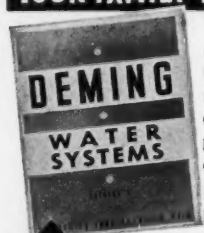

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meter and you measure the light yourself in foot-candles.

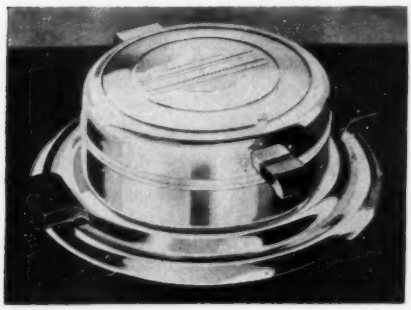
There you are. Knowing what you want, you can have your light made to order under any lamp you work by. Because you can work it backwards, you know. Or at least a lighting engineer can. Once you know what you want, he can tell you how to get it.

To be sure measuring the light is just one step toward getting good lighting in our homes, but it is an important step. The quality of the light, its freedom from glare, its diffusion, and its beauty are another story. After we have considered the Illuminating Engineering Society's recommendations for quantity, we will get to that other story, too.

• • •

WAFFLES FOR TWO

MOST everyone likes waffles. They taste pretty good for breakfast with maple syrup and a steaming cup of hot coffee. If you precede



them with fruit, and help them out with a green vegetable, cooked or for a salad, they will take the place of potatoes and bread for dinner. Then they appear at their best with a helping of creamed chicken or chipped beef, or left-over ham, I think. For suppertime waffles and sizzling little hot sausages make the most of the meal.

A good waffle recipe calls for plenty of shortening. Never forget that. And that shortening better be butter. Butter for the making, and then lots more butter for the eating, of course.

Here is a recipe Miss Abby Marlatt gave us during Farmer's Week at the University of Wisconsin quite a number of years ago.

2 eggs—separate yolks and whites
1 cup milk
1½ cups flour
2-4 tablespoons butter, melted
2 teaspoons baking powder

To make these waffles easily and quickly, says Miss Marlatt, get all the materials ready for the mixing first. Put the egg white in one of the bowls of your electric beater, and the yolks in the other. Melt the butter, then sift and measure the flour. Pour out the milk in a measuring cup.

Then beat the whites of the eggs, and next, without washing the beater, beat the yolks, adding to them, when they are thick and lemon colored,

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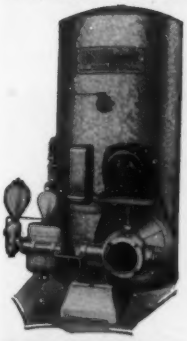

THINK it over, and you must agree today that pumping and toting water is "penny wise and pound foolish." Uniflows are sturdy—long lived—low priced—economical—easy to care for and mighty easy to finance.

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the butter, the liquid and the flour, beaten them all together. Sift the baking powder over the top and beat once more. Fold in the beaten whites carefully, either with the beater or a spoon, as you prefer.

There are endless variations to this standard recipe. The addition of berries or nuts, of dates, or sausages makes it possible to change your waffle greatly.

I would like to tell you about another waffle Miss Marlatt commended to our attention, a cereal

Waffles and syrup for two.

waffle that may be made with corn meal, oat meal or rice, she says. For the cornmeal waffle

Measure 1½ cups cornmeal
Add 2 T. butter
Add 2 cups boiling milk
Stir until mush is thick—cool it.
Add 1 teaspoon salt; add 2 eggs well beaten. Cook in hot waffle iron. Serve with maple syrup and butter.

Unless you cook them right, even the best recipes will not turn out the waffles of your dreams, golden and crisp, feather light and done all through.

You must have the iron hot enough, but not too hot. And you must cook them long enough, but not a minute longer. I've baked a deal of waffles in my time. I baked waffles first on one of those old two story affairs that sat over the open hole on a wood stove, and turned a somersault to bake the top side. I've made as good waffles as I want to put into my mouth on an iron like that, but it was a strong man's job.

It is a mercy to us women that waffle irons are wired for heat nowadays, and more than that are built to watch themselves. With an automatic electric iron, all you have to do is plug in the cord, and read the directions. No. That's quite the wrong way round. I should have said, by all means, read the directions and plug in the cord.

Each manufacturer makes a waffle iron with its own little way of doing the job best, so you want to know what yours is.

On some of the irons the card will say "close waffle iron, attach cord, and turn on the current. Allow it to heat about ten minutes. When it is hot, you can brush the grids with any unsalted fat, closing them again for a couple of minutes before you pour in the batter for the first waffle."

They need not be greased again unless the waffle iron is left unused for several months, or has been left burning for a long time with no batter on the grids. In one case the grease may have evaporated, in the other it may be burned off. At any rate the iron may need a second greasing.

The new automatic waffle irons can be set to give you light, or medium, or a dark brown waffle. Just as you prefer. They have various means of signalling when they are hot enough and when the waffle is done, too. So, if you will watch the signs and follow them, your waffles should be always just as you like them, evenly baked and light as air.

After the waffles are baked, some folks heat the waffle iron a minute or two to burn off any excess fat. If you have left crumbs on the brim, brush them off, and wipe the iron with a damp cloth. Leave it open to dry and cool.

As you use the iron, the grids will darken. You can't help that, so don't let it worry your housewifely soul. If you were to scour them, you would remove the fat and would have to reseason the the iron, before you baked waffles again.

The Helpful Chore Motor

One small electric chore motor, readily portable from one task to another, can save the farmer a great deal of time and energy to be devoted to definitely productive work. It will shell corn, grind feed, scrub the incubater trays, saw wood, sharpen the ax, turn the lathe, wash and grade fruit, mix concrete, freeze ice cream, run the churn, grind sausage—in fact, it will run nearly all the lighter farm machinery. It is tireless—when one job is finished, it can easily be hooked up to another machine, where it will purr along, unwatched, as long as it is needed.

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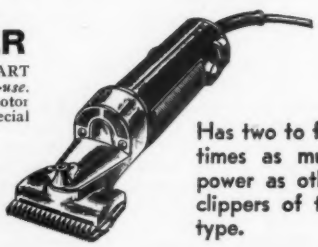

Has two to five times as much power as other clippers of this type.

ON THE AIR

Conducted by JEROME J. HENRY

Fibber Run Off His Own Premises

AFTER being run off the premises when he tried to lend a hand in the building of his own house, Fibber McGee has decided that the adage, "shoemaker, stick to your last," is good advice.

The radio comic went out recently to look over the progress on his house under construction in a suburb. Feeling helpful, Fibber nailed a board here and there, and laid an occasional brick.

But instead of helping he only succeeded in getting in the way of the builders. Soon he was ejected in no uncertain manner.

Hereafter Fibber will build tall ones and wide ones only before the microphone.

• • •

An Art to Swedish Dialect

THE only actors who do good Swedish dialect, says Thor Ericson, are the Swedes.

Ericson, as might be suspected, is a Swede; not a Swedish born Swede, but the son of Swedish born parents, and he plays a Swedish dialect role, that of Yohnny Yohnson in Kaltenmeyer's Kindergarten over NBC stations.

Colonel Stoopnagle, as Mr. Bopp, gives a bit of advice about the presidential campaign. Don't vote for Stoopnagle, he says, and you'll have the peachiest president in all history. Only a small part of the Town Hall Tonight program is needed to keep Stoopnagle out of the White House.

Thor has been playing Swedish dialect roles since his student days at Crane College, Chicago. His first role was that of a valet in "The Boomerang," and in that play the valet was supposed to be French. Thor's French dialect was not of the best, however, so the director indulgently let him play the role in Swedish dialect, which would indeed have startled the author had he been present.

Ericson has some very definite ideas about this

(*Continued on page 26*)

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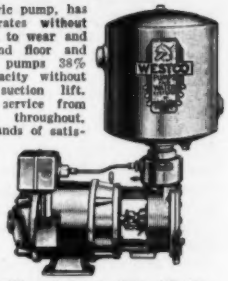

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275 gals. per hour Westco. Others up to 3000 gals. per hour. Larger tanks available.

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Without obligation, please send me FREE Westco Catalog.

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IRRIGATE with OOZO POROUS HOSE

OOZO does a better job with less water • Water flows gently through pores of hose into ground • Used in orchard, field or garden • Approved by well-known Agricultural Colleges, Irrigation Engineers, etc. • Money refunded after 5 days trial if not satisfactory.

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Agents and Demonstrators Wanted

OOZO, INC., HOWELL, MICH.

PRACTICALLY IMMUNE TO DAMAGE—

CHROMALOX

SUPER-SPEED ELECTRIC RANGE BURNERS

A solid body of refractory with a metal covering protects the burner against damage by spilled food, physical blows, or corrosive action. Two-burners-in-one saves cooking costs, too. Fast-cooking. Fits any range. Ask your electric dealer, your power company, or write us.

EDWIN L. WIEGAND CO., 7580 Thomas Blvd., Pittsburgh, Pa.

ASK YOUR POWER COMPANY for a DEMONSTRATION

Profits in Water

(*Continued from page 17*)

And yet when any man pumps water by hand from an average 30-ft. well he is actually working for not more than 1c an hour, provided, of course, he has electricity on the farm and can use an electric motor to do the same work. Why? Because an electric motor will pump the same amount of water for 1c.

Some time ago I talked with a woman who was helping her husband operate a poultry farm. A few months before this, their electric pumping system had been put out of commission by floods. This lady had carried water for household uses and also for a large flock of chickens. She said:

"It seemed to me I had to carry 100 tons of water every week while our electric system was out of order.

"Actually," she said, "it takes 3½ hours every day to wash the poultry water troughs and replenish them with water on our farm, when carrying water by hand. With the electric water system in operation this work is easily completed in ½ hour."

Figured at 25c an hour, the electric water system on this farm was saving $273.75 a year, in labor, and it cost only about $27 a year to operate the electric pump and pay for its maintenance and depreciation.

We often hear people on the farm say they would like to live in town, and one of the principal reasons is that they could have running water facilities and conveniences in the home, as well as water to irrigate a nice lawn and flowers. Many of us do not appreciate the fact that where electric service is available the monthly bill for current to operate an electric water system on the farm, furnishing even more water than would be used in the city home, averages less than that paid by the average family in town or city for the same privilege.

Running Water, An Asset

Running water in the home will improve the health of the children. A beautiful lawn and flowers are not the only consideration in favor of an electric water system on the farm. It is actually a money maker for the farmer in other ways. Fresh, clean water, always available for livestock, is necessary to enable the farmer to make a maximum profit. It is necessary for the health and comfort in the home, and is the one thing needed to make the country home more beautiful and attractive than the city home.

A Georgia Kitchen

(*Continued from page 18*)

and economy of their new electric servants.

Mrs. W. P. Middlebrooks of Haddock, has remodeled her home completely, making an inviting green and white retreat in a grove of beautiful trees. Mrs. Middlebrooks' kitchen has white walls and ceiling, and she is carrying out an attractive color scheme of red and black. Her new electric range and refrigerator are a "joy forever," so she tells us.

Mrs. J. C. Balkcom of James is another customer who has changed from a wood range to a modern electric one. Her kitchen was painted a dark grey, but now it has been changed to a lighter color—new linoleum has been placed on the floor, and attractive sheer curtains brighten the windows. She also has a new electric water heater, as well as a portable cooker, percolator, toaster and waffle iron. She believes in better lighting too, for she has purchased an indirect fixture for her living room, as well as two new lamps.

Mrs. J. A. Pursley of Haddock has had a complete General Electric kitchen plan drawn for her, which she intends to follow in modernizing her kitchen. She already has her new electric range, and is working toward a complete electric kitchen.

Some Odd Jobs for Electricity

The Ohio Agricultural Experiment Station learned that cooked soybeans were an extra good supplemental feed for hogs. To cook these over an open fire was a chore, and labor costs were high. Electricity purchased at offpeak rates, from 9 p.m. to 7 a.m., cooks them at 10 cents per hundredweight in an electric cooker.

A Virginia farmer found that water in a creek passing through his land came from a hot spring. With an electric pump he irrigated his vegetables from the warm creek and prevented his produce from freezing. This permitted him to market late vegetables at an excellent price.

In egg storage, temperature is very important. Above 55 degrees or below 30 degress causes whites to become weak and watery and the yolks are visible in candling. In this condition they will not be listed as top grade in New York markets. With electric coolers controlled by thermostats an ideal temperature of 50 degrees with 75% humidity can be maintained

Bees, if given a little electric heat in the winter, will increase in numbers and be healthier in the spring.

Even in Zero Weather

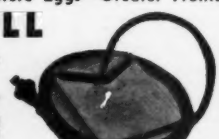
Water at 50° F.—More Eggs—Greater Profits

TRUMBULL

Automatic - Electric Poultry

Water Warmer

Costs less than an egg a day to operate. Pays for itself the first season. Price, $3.00, at your dealer's or from us postpaid. Performance Guaranteed.



110 Volts A.C.

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A GENERAL ELECTRIC ORGANIZATION

GRIND ELECTRICALLY

Grind Feed with an Electrically Driven W-W

With your low-cost electric power and a W-W Hammer Grinder you can grind and mix everything — from the heaviest roughage to small grains. Hard-to-chew stalks and stems, fodder, bundle feeds, maize heads, ear corn with shuck, etc., can be quickly converted into nutritious feed with the W-W.

Write for Full Details

Tell us what you have to grind, and how much. We'll make recommendations, send you illustrated catalog and prices—no obligation, of course.

W-W FEED GRINDER CORP.
Wichita Kansas

Questions and Answers

Conducted by R. U. BLASINGAME

Correcting Pump Trouble

Question: *We have an automatic electric pump, capacity 230 gallons per hour and is piped throughout the house with ¾ inch pipes. The one fault that I cannot seem to overcome is that there seems to be too much air in the water line. Instead of a steady flow of water at the faucet, we get it in spurts. We are now installing a hot water system and I would like to inquire whether or not this unsteady stream of water would be a handicap to the heating system and if you could inform me how to remedy this. Thanking you in advance I remain.*
G. U.

Answer: There are several things that may be wrong with your water system. Assuming that you have a piston type pump the trouble may be that either you are pumping a small quantity of air through the suction side of your system or perhaps have connected the delivery line too high on the pressure storage tank.

Air may enter the suction side either through a leaky joint or leaky gasket on suction side of pump. Check to see that the lower end of the suction line is under water at all times. If you have an automatic air control on the pressure tank see that couplings on tube between air control valve on the tank and the Schrader valve on pump are tight. Air control valve may be stuck or out of adjustment.

When water system is operating correctly, the pressure storage tank should be about ¾ full of water. The upper ¼ should contain air. The delivery pipe should be connected near the bottom of the tank so that air will not enter line.

I am not sure what type of heating system you are referring to but in any case heating would be very inefficient under such conditions. The water system is also inefficient. The trouble should be corrected for satisfactory operation.

A Slam on Freshmen

Visitor: "And what's the building over there?"
A Sophomore: "Oh, that's the greenhouse."
Visitor: "I didn't know that the freshmen had a dormitory all to themselves."

COOLS ALL THE MILK in EVERY CAN!

You get Icy Water ABOVE the MILK LEVEL, whether you have one can, half capacity or full capacity. ESCO NI-AG-RA with EXCLUSIVE HIGH WATER LEVELER cools both night and morning milk to 50° or less in one hour. Write today for booklet!

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If You Want Free Information

Complete information about any equipment you are considering buying is yours for the asking.

But please give our advertisers first opportunity to answer your questions. They are particularly well equipped to serve you.

For any further information you need —use the handy coupon below—listing the applications on which you want further information.

___Animal Clippers	___Light for Plant Growth
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___Bunch Tyers	___Poultry Fount Warmers
___Burglar Alarms	___Radios
___Churns	___Ranges
___Clocks	___Range Heating Units
___Clothes Washers	___Refrigerators
___Coffee Makers	___Roasters
___Corn Shellers	___Sewing Machines
___Cream Separators	___Soil Heating
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___Flat Irons	___Tool Grinders
___Floodlights	___Ultraviolet Light
___Food Mixers	___Vacuum Cleaners
___Hay Choppers	___Vegetable Washers
___Hay Hoists	___Ventilators
___Ice Cream Freezers	___Waffle Irons
___Incubators	___Water Heaters
___Insect Killers	___Water Softeners
___Ironing Machines	___Water Supply
___Irrigation Equipment	___Woodworkers

FREE INFORMATION COUPON

Readers' Service Dept.
Electricity on the Farm
24 W. 40th St., New York

Without cost to me, please have manufacturers send complete information on the following Electrically Operated Equipment which I am thinking of buying. .....

My name is .....

Address .....

I get electricity from .....

.....10-36

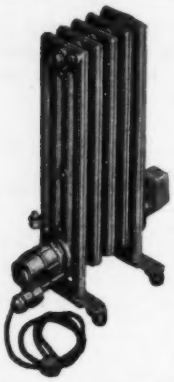
What's New

Reviewed by T. E. HIENTON

Names and addresses of manufacturers of the articles described in this column will gladly be furnished upon request. Address your requests to What's New Department, ELECTRICITY ON THE FARM, *24 West 40th Street, New York, N. Y.*

Portable Electric Steam Radiator

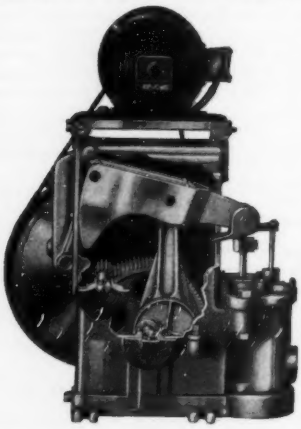
Extra heat is often needed on the farm to make the bathroom comfortable for bathing, in the workshop or garage so that harness may be greased or machinery repaired or in a small room in the granary where seed corn is to be dried. Electricity can supply the necessary heat economically in many such cases with a minimum danger from fire.



An eastern manufacturer has developed a portable electric steam radiator which will be of interest to many farmers. Made in three sizes, this radiator is heated respectively by 750, 1,000 or 1,250-watt units. Liquid in the radiator is heated directly. A thermostat shuts off the current when the pressure reaches five pounds. If more heat is needed, the current is turned on again automatically after the pressure is reduced to two pounds. Temperature range of the thermostat dial is from 55 to 80 degrees F.

Automatic Deep Well Pump

Running water in the farm house is one of the first requisites for a bathroom on the farm. Several types of power are available to drive the pump but none as satisfactory as the electric. The automatic pressure switch starts and stops the motor when necessary to pump additional water. Another device on many of the newer pumps is a thermal relay which prevents the motor from becoming overheated if for any reason the pump should overload it.



A new deep-well pump with thermal relay for overload protection for the motor has been recently announced by a middle-western pump manufacturer. The pump is made in five sizes to be driven by motors of ⅓, ½, ¾, 1 or 1½ horsepower respectively. A single V-belt drive is used on the first three models mentioned and a double V-belt drive on the last two. Moving parts operate in an enclosed bath of oil.

On the Air

(*Continued from page* 23)

business of playing Swedish dialect. The authentic product, he points out, involves not only pronunciation, such as making "y's" out of "j's," but also a definite lilt which is characteristic of the spoken language.

Ericson learned his dialect from his father's relatives in Michigan. His mother, who spent the first 15 years of her life in Stockholm, has outgrown her native dialect so completely that she no longer is able even to imitate her son's radio dialect.

• • •

Has Many Instruments But Can't Play a Note

NOT long ago the story of Malcolm Claire, NBC's "Spareribs" was told. Claire has at least 23 musical instruments, none of which he can play. A reporter who could not believe a man would have so much enthusiasm for music and still be so "unmusical" himself stole out to the Claire home unannounced, to see for himself.

Malcolm was found in one corner of the library of 7,000 volumes which he uses in preparing his radio stories, playing, of all things, a comb.

He had a guitar and accordion handy but as far as Claire was concerned, they were useless for producing music.

CLASSIFIED ADVERTISING

ELECTRIC SUPPLIES FOR POULTRYMEN are described in a catalog offered by the oldest electrical manufacturer specializing in electric poultry equipment. Long experience enables the Lyon Line to offer you real performance at low cost. Are you interested in modern electric fan brooders, fly electrocutors, incubators, burglar and fire alarms, electric material for homemade equipment? A catalog will be sent without charge or obligation. LYON ELECTRIC CO., Dept. E.F., San Diego, Calif.

The PARAGON POULTRY TIME SWITCH is scientifically designed and approved by state universities. It provides automatic control both morning and night and DIMS THE LIGHT AT NIGHT to allow the hens to return to roost. Low price and UNCONDITIONALLY GUARANTEED. Write for full information today. PARAGON ELECTRIC COMPANY, Van Buren and Dearborn Sts., Chicago, Ill.

THE GRAIN BUSTER—a new type Feed Grinder—only one moving part excepting bearings—lasts longer, runs easier, delivers fresh feed faster, operates satisfactorily from 5 HP. motor. Write for descriptive folder. LINK MANUFACTURING CO., INC., Fargo, North Dakota.

WRITE FOR BROWER'S New Big Supply Catalog and Poultry Guide. Shows largest line of poultry equipment in world; over 425 items; including Electric Fountains, Brooders, Incubators, Lighting Devices. Filled with poultry information. Low prices—Big Savings—Write today. BROWER MFG. CO., Dept. N30, Quincy, Ill.

COVER TITLE CONTEST

AUGUST COVER

RULES
October Title Contest

Ten cash prizes will be awarded for the 10 best titles for the picture on the front cover of this magazine.

The first prize will be $20 cash, and nine second prizes of $2 in cash will be awarded.

In case of a tie, each winning contestant will receive the full cash prize to which he or she is entitled.

Titles should be brief—the shorter the better.

All members of the farm family to whom this magazine was sent may submit titles, but each contestant may submit only one title.

Question "A" must be answered.

Entries must be sent to the Title Editor, ELECTRICITY ON THE FARM, 6 North Michigan Avenue, Chicago, Illinois, before November 1st.

Winning names and titles will be announced in the December issue.

Send your title on the coupon or make out a similar form on a plain sheet of paper or government postcard.

$20 First Prize for August Contest

"Dinner in an electric nutshell."

BYRON KERN, Norwalk, Iowa

Nine $2.00 Prizes for August

"Mother explains to her little man—
'Electricity cooked it all in one pan'."
MRS. MARY E. WEGNER, R.F.D. 1, Box 71, Naperville, Ill.

"All we wish, electrically cooked in one dish."
LORETTA MARES, R.F.D. 1, Rogers, Neb.

"Mother's smiling so is son,
Electric roasters make cooking fun."
MRS. ANN BUCKBERY, MINTOLA, N. J.

"Electrically 'casserole-ling' to a young man's heart."
MRS. JOHN G. JOHNSON, R.F.D. 1, Nashotah, Wis.

"Yes son, dinner's done
With the electric cooker it was fun."
VIRGINIA BERQUIST, R. 1., Cadillac, Mich.

"The electric cooker by clever planning
Frees the range for summer canning."
MRS. RUTH STILLMAN, R.F.D. 2, Plainfield, N. J.

"Both mother and sonny know it's a 'winner,'
When the electric roaster cooks the dinner."
MRS. H. N. FULLER, R.F.D. 2, Suffield, Conn.

"An entire meal ready to eat,
Quickly cooked with electric heat."
MRS. WM. HUCKER, R.F.D. 1, Ingleside, Ill.

"On a summer day when it's a toaster
Just get your meal in the electric roaster."
K. ELIZABETH MYERS, R.F.D. 3, Waynesboro, Pa.

My title for the Front Cover picture on ELECTRICITY ON THE FARM for October is

.....

.....

(a) Do you have an electric milk cooler?.....*What make?* .....

Do you use electric refrigeration for any other purpose on your farm?.....

My name is.....*R.F.D.*.....

Post Office.....*County*.....*State*.....10-36

Five Simple Rules for Providing Adequate Light in Your Home

1. See that there is a good reading lamp by every easy chair, every sofa, beside your bed — every place where reading, sewing, or any other close seeing is done.
2. Use light colored shades on all lamps, and see that shades have open tops so that some light can go upward toward the ceiling. Also see that the shade is wide enough to throw light where needed.
3. Eyestrain is reduced by having the whole room moderately well lighted . . . so that there is not too much contrast between the light on your book and the light throughout the room.
4. Always use at least the following bulb sizes in reading lamps: one 100-watt lamp, or two 60-watt lamps, or three 40-watt lamps.
5. Beware of bargain lamp bulbs. Always look for the trade-mark of a reputable manufacturer on the end of the bulb if you want plenty of good light at low cost.

"Better Light—Better Sight"

ASK YOUR POWER COMPANY

or your electrical equipment dealer if you need further information. Or, if you prefer, address your inquiries to ELECTRICITY ON THE FARM, *24 W. 40th St., New York, or 6 No. Michigan Ave., Chicago.*

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